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## NOTICE OF ALLOWANCE AND FEE(S) DUE

57035 7590 03/25/2008

KACVINSKY LLC  
C/O INTELLEVATE  
P.O. BOX 52050  
MINNEAPOLIS, MN 55402

EXAMINER

NGUYEN, TANH Q

ART UNIT

PAPER NUMBER

2182

DATE MAILED: 03/25/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,616	06/30/2003	Ling Chen	1020.P16534	1415

TITLE OF INVENTION: MANAGING A BUFFER FOR MEDIA PROCESSING

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	06/25/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

## HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

**PART B - FEE(S) TRANSMITTAL**

Complete and send this form, together with applicable fee(s), to: **Mail Stop ISSUE FEE**  
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**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

57035 7590 03/25/2008

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C/O INTELLLEVATE  
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MINNEAPOLIS, MN 55402

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

**Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)

(Signature)

(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,616	06/30/2003	Ling Chen	1020.PI6534	1415

TITLE OF INVENTION: MANAGING A BUFFER FOR MEDIA PROCESSING

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	06/25/2008

EXAMINER	ART UNIT	CLASS-SUBCLASS
NGUYEN, TANH Q	2182	710-052000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

"Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 \_\_\_\_\_  
2 \_\_\_\_\_  
3 \_\_\_\_\_

## 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY AND STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent):  Individual  Corporation or other private group entity  Government

## 4a. The following fee(s) are submitted:

## 4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- Issue Fee
- Publication Fee (No small entity discount permitted)
- Advance Order - # of Copies \_\_\_\_\_

- A check is enclosed.
- Payment by credit card. Form PTO-2038 is attached.
- The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

## 5. Change in Entity Status (from status indicated above)

## 5. Change in Entity Status (from status indicated above)

a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS; SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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57035	7590	03/25/2008		EXAMINER
KACVINSKY LLC C/O INTELLEVATE P.O. BOX 52050 MINNEAPOLIS, MN 55402			NGUYEN, TANH Q	ART UNIT
				PAPER NUMBER
			2182	DATE MAILED: 03/25/2008

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 196 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 196 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

<b>Notice of Allowability</b>	<b>Application No.</b> 10/611,616	<b>Applicant(s)</b> CHEN, LING
	<b>Examiner</b> TANH Q. NGUYEN	<b>Art Unit</b> 2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTO-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to amendment filed December 10, 2007.
  2.  The allowed claim(s) is/are 2,5-8,12,13,17,18 and 23.
  3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a)  All    b)  Some\*    c)  None    of the:
      1.  Certified copies of the priority documents have been received.
      2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.
- Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**
4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
    - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
  6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.

**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with the attorney for applicant, Andrew Aurand (Reg. No. 61,875) on March 12, 2008.

The application has been amended as follows:

Canceled claim 1.

2. (currently amended) A method to manage a buffer, comprising ~~The method of~~  
~~claim 1, wherein said storing comprises:~~

receiving said audio information;

identifying a buffer location in a circular buffer to store said audio information;

and

storing said audio information in said buffer location;

determining whether said buffer location is a frame boundary;

sending a first signal with said frame boundary if said buffer location is said frame boundary;

scheduling access to said audio information, wherein said scheduling comprises:

receiving said first signal;

selecting components of a plurality of components to access said circular buffer using said frame boundary, wherein each of the selected components has a frame boundary that corresponds to said frame boundary;  
sending a second signal to said selected components to access said circular buffer; and  
accessing said stored audio information by said selected components in accordance with said scheduling.

Canceled claims 3-4.

5. (currently amended) The method of claim [4] 2, wherein said accessing by each of said selected components comprises:

receiving said second signal;  
retrieving an index to indicate a first buffer location;  
reading a frame of audio information from said circular buffer using said index;  
processing said read frame of audio information;  
writing said processed frame of audio information to said circular buffer; and  
updating said index to a second buffer location.

6. (currently amended) An apparatus to perform media processing, comprising:  
a circular buffer;  
an audio data module connected to said circular buffer;

a plurality of components connected to said circular buffer; and  
~~a scheduling module connected to said audio data module and said plurality of components, said scheduling module to generate a schedule of access to audio information stored by said circular buffer for said plurality of components, said audio data module to determine a frame boundary for said stored audio information, and said plurality of components to access said stored audio information in accordance with said schedule and said determined frame boundary;~~

~~the determined frame boundary corresponding to a frame boundary of at least one of the components~~

wherein said audio data module receives audio information, identifies a buffer location in said circular buffer to store said audio information, stores said audio information in said buffer location, determines whether said buffer location is a frame boundary, and sends a first signal with said frame boundary if said buffer location is said frame boundary.

wherein said scheduling module generates a schedule of access to said audio information by receiving said first signal, selecting components of the plurality of components to access said circular buffer using said frame boundary wherein each of the selected components has a frame boundary that corresponds to said frame boundary, and sending a second signal to said selected components to access said circular buffer, and

wherein said selected components access said stored audio information in accordance with said generated schedule.

Canceled claims 9-11.

12. (currently amended) The apparatus of claim 11 6, wherein each of said selected components accesses said stored audio information by receiving said second signal, retrieving an index to indicate a first buffer location, reading a frame of said stored audio information from said circular buffer using said index, processing said read frame of audio information, writing said processed frame of audio information to said circular buffer, and updating said index to a second buffer location.

13. (currently amended) An article comprising:

a storage medium;

said storage medium including stored instructions that, when executed by a processor, result in: ~~storing audio information in a circular buffer, generating a schedule of access to said audio information by a plurality of components, determining a frame boundary for said audio information, and accessing said stored audio information by said components in accordance with said schedule and said determined frame boundary;~~

~~the determined frame boundary corresponding to a frame boundary of at least one of the components.~~

receiving audio information;

identifying a buffer location in a circular buffer to store said audio information;

storing said audio information in said buffer location;  
determining whether said buffer location is a frame boundary;  
sending a first signal with said frame boundary if said buffer location is said frame  
boundary;  
scheduling access to said audio information, wherein said scheduling comprises:  
receiving said first signal;  
selecting components of a plurality of components to access said circular  
buffer using said frame boundary, wherein each of the selected components has  
a frame boundary that corresponds to said frame boundary;  
sending a second signal to said selected components to access said  
circular buffer; and  
accessing said stored audio information by said selected components in  
accordance with said scheduling.

Canceled claims 14-16.

17. (currently amended) The article of claim 46 13, wherein the stored instructions, when executed by a the processor, further result in said accessing by each of said selected components by receiving said second signal, retrieving an index to indicate a first buffer location, reading a frame of audio information from said circular buffer using said index, processing said read frame of audio information, writing said processed

frame of audio information to said circular buffer, and updating said index to a second buffer location.

18. (currently amended) A system to process audio information, comprising:
- a media gateway;
  - a media gateway controller; and
  - a media processing device connected to said media gateway and said media gateway controller, said media processing device comprising:
    - a circular buffer;
    - an audio data module connected to said circular buffer;
    - a plurality of components connected to said circular buffer; and
    - a scheduling module connected to said audio data module and said plurality of components, ~~said scheduling module to generate a schedule of access to audio information stored by said circular buffer for said plurality of components, said audio data module to determine a frame boundary for said stored audio information, and said components to access said stored audio information in accordance with said schedule and said determined frame boundary;~~
    - ~~the determined frame boundary corresponding to a frame boundary of at least one of the components~~
    - wherein said audio data module receives audio information, identifies a buffer location in said circular buffer to store said audio information, stores said

audio information in said buffer location, determines whether said buffer location is a frame boundary, and sends a first signal with said frame boundary if said buffer location is said frame boundary,

wherein said scheduling module generates a schedule of access to said audio information by receiving said first signal, selecting components of the plurality of components to access said circular buffer using said frame boundary wherein each of the selected components has a frame boundary that corresponds to said frame boundary, and sending a second signal to said selected components to access said circular buffer, and

wherein said selected components access said stored audio information in accordance with said generated schedule.

Canceled claims 20-22.

23. (currently amended) The system of claim 22 18, wherein each of said selected components accesses said stored audio information by receiving said second signal, retrieving an index to indicate a first buffer location, reading a frame of said stored audio information from said circular buffer using said index, processing said read frame of audio information, writing said processed frame of audio information to said circular buffer, and updating said index to a second buffer location.

***Allowable Subject Matter***

2. *The following is an examiner's statement of reasons for allowance:*

*the prior art, individually or in combination, does not teach determining whether a buffer location containing audio information is a frame boundary, sending a first signal with the frame boundary if the buffer location is a frame boundary, scheduling access to the audio information by receiving the first signal, selecting components of a plurality of components to access the audio information using the frame boundary, where each of the selected components has a frame boundary that corresponds to the frame boundary, sending a second signal to the selected components to access the buffer; and the selected components accessing the audio information in accordance with the scheduling.*

*Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."*

***Conclusion***

*Any inquiry concerning this communication or earlier communications from the examiner should be directed to TANH Q. NGUYEN whose telephone number is (571)272-4154. The examiner can normally be reached on M-F 9:30AM-7:00PM.*

*If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alford Kindred can be reached on 571-272-4037. The fax phone number for*

Art Unit: 2182

*the organization where this application or proceeding is assigned is 571-273-8300.*

*Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.*

/Tanh Q. Nguyen/  
Primary Examiner, Art Unit 2182

TQN  
March 12, 2008